



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,732	03/31/2004	Martin J. Nilsen	13582.01	9868

7590 03/04/2005

PAUL F. DONOVAN
ILLINOIS TOOL WORKS INC.
3600 WEST LAKE AVE
GLENVIEW, IL 60025

EXAMINER

BRYANT, DAVID P

ART UNIT PAPER NUMBER

3726

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/814,732

Applicant(s)

NILSEN ET AL.

Examiner

David P. Bryant

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 033104.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 10, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lo et al.

(U.S. Patent No. 6,019,557)

Claim 9: In Figures 4 and 5, Lo et al. teach a method of making a nut and plate washer assembly 5, comprising:

forming a nut body 15 having a shank and a head 154, with a central bore therethrough being threaded 152 (column 2, line 53 to column 3, line 9);

forming a washer body 4 having an opening 40 therethrough between first 43 and second 44 opposed surfaces (column 3, lines 10-19);

providing a recess 412 in one of said washer surfaces 43 (column 3, lines 13-15); and

press fitting said washer body 4 on said nut body shank, with said nut body head 154 disposed in said recess 412 (column 3, lines 20-28).

Claim 10: See column 3, line 10.

Claim 13: See column 3, lines 30-33. Thread tapping is a machining operation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al. (U.S. Patent No. 6,019,557) in view of Church et al. (U.S. Patent No. 3,381,362) and Rosan (U.S. Patent No. 2,685,320).

Claim 11: Lo et al. fail to teach knurls on the outer surface of the shank of the nut body **15** that engage with the wall of opening **40** disposed through the washer body **4**. However, it is noted that Lo et al. disclose keys **158** on the nut body shank that engage with corresponding keyways **42** on the washer body to prevent relative rotation of the parts.

Church et al. teach a method of press fitting a threaded stud **22** into a washer body **1c** to form a stud/washer assembly **40** (see Figures 19 and 20). The threaded stud **22** is provided with an upper portion having a tapered head **24** to mate with a countersunk recess **19** formed in the washer body **1c**, and a knurled shank **25** that is oversized with respect to the opening through the washer body (Figure 8; column 5, lines 44-46). The press fitting step is illustrated in Figures 8-10, wherein the knurls engage with the wall of the opening through the washer body to form the completed assembly **40** (column 5, lines 51-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the nut body shank of Lo et al. with knurls to engage with the wall of the opening through the washer body, as taught by Rosan, since knurls and keys/keyways have

Art Unit: 3726

been shown to be functional equivalents in the art for preventing rotation between a washer body and a fastener press fit therein. The selection of either is well within the level of ordinary skill. Further, the provision of knurls on the nut body shank of Lo et al. would provide the additional advantage of obviating the requirement for keyways in the washer body.

Although Church et al. teach a threaded stud rather than a nut body, Rosan teaches that the principles of press fitting a stud **12** into an opening (Figure 1) are equally applicable to press fitting a nut body **12a** into an opening (Figure 4). Thus, one of ordinary skill in the art would have found it obvious to apply knurls to either a nut body or a threaded stud.

Claim 12: See column 3, line 10, of Lo et al.

Claim 14: As taught by both Rosan (column 3, lines 33-43) and Church et al. (column 4, lines 30-34), it is common for the fastener to be formed from a different material than the material of the plate. Further, It would have been obvious to one of ordinary skill in the art to form the washer and nut body of any suitable materials, since it has been held that the selection of a known material on the basis of its suitability for the intended use is a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Bryant whose telephone number is (571) 272-4526. The examiner can normally be reached on Monday-Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

Art Unit: 3726

supervisor, Peter Vo can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David P. Bryant
Primary Examiner
Art Unit 3726

dpb
3/1/05